APPENDIX P

MITIGATION MONITORING PROGRAM

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OVERVIEW

This Mitigation Monitoring Program (MMP) was developed to ensure that mitigation measures included in the Environmental Impact Report (EIR) are fully implemented to reduce environmental impacts to less than significant levels. The MMP complies with the requirements of Public Resources Code 21081.6, which requires the lead agency to adopt a reporting or monitoring program.

The core of this MMP is the attached Implementation Table (Table P-1) listing mitigation measures from the project's EIR, implementation timing, documentation required, and the agency responsible for monitoring. Atlantic Richfield Company of Los Angeles, CA (ARCO) will coordinate all pier removal activities directly through Fairweather Pacific and supporting contractors. ARCO will also utilize engineering and environmental consultants to assist in supervising project construction. All mitigation measures are required by the California State Lands Commission (CSLC). This program is based on the following compliance actions:

- Oversight of construction activities
- Biological (marine mammal) monitoring

BIOLOGICAL MONITOR

A biological monitor will be designated to oversee all project activities and clear the area of wildlife prior to detonation of the explosives during project operation. The biological monitor shall be approved by CSLC, and whose duties will include, but not be limited to:

1. Become familiar with the intent to each mitigation measure of the EIR.
2. Become familiar with this MMP.
3. Become familiar with the intent of each measure in the following documents that have been incorporated into the Proposed Project:
   - Anchor Mitigation and Hardbottom Avoidance Plan (Appendix C of the EIR)
   - Wildlife Protection Plan (Appendix J of the EIR)
   - Marine Mammal Contingency Plan (Appendix L of the EIR)
4. Survey PRC-421 for nesting birds, especially brown pelicans and double-crested cormorants, prior to initiation of project activities.
5. Clear the project area of wildlife, especially marine mammals, prior to detonation of the explosives.
6. Contact the construction superintendent each day to determine the work schedule.

7. Observe all work activities on a daily basis.
8. Ensure non-compliance remedies are fully implemented.
9. Alert ARCO/Fairweather Pacific staff to situations requiring temporary shut-downs or the project due to sensitive species sightings.
10. Prepare daily reports.
11. Prepare draft and final reports for submittal to CSLC.

Table P-1. Mitigation Monitoring Required by California State Lands Commission for PRC-421 Pier Removal Project - Implementation Table

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Geology				
GEO-1	No mitigation required.			
GEO-2	No mitigation required.			
GEO-3	No mitigation required.			
GEO-4	No mitigation required.			
GEO-5	No mitigation required.			
GEO-6	No mitigation required.			
GEO-7	No mitigation required.			
Air Quality				
AIR-1	No mitigation required.			
Traffic				
TRF-1	No mitigation required.			
TRF-2	No mitigation required.			
TRF-3	No mitigation required.			
TRF-4	Notification to NOAA regarding hardbottom substrate and bird roosting/nesting platforms for inclusion on future nautical charts.	Prior to project construction	Record of communication with NOAA	CSLC
Biological Resources				
BIO-1	Implementation of the *Wildlife Protection Plan* (Appendix J of the EIR).	Throughout the duration of the project	*Wildlife Protection Plan* (Appendix J of the EIR) & Biological Monitoring Sheet	CSLC
	The principal investigator should not be allowed to waive the need for aerial surveying and monitoring as stated in the Wildlife Protection Plan in the event that a low ceiling or other factor precludes aerial monitoring. Should weather conditions or other factors prevent aerial surveying and monitoring, then no detonations should occur until such conditions subside and aerial surveying and monitoring can be conducted.	During detonation procedure	Biological Monitoring Sheet	CSLC

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
	Prior to each detonation of the charges, a "bubble curtain" shall be placed around the caisson area. The bubble curtain will create a continuous stream of bubbles around the perimeter of the caissons reducing the effects of the explosion on fish. It is also anticipated that the bubble curtain itself will produce enough underwater noise and visual activity to reduce the number of fish within the area surrounding the caissons prior to detonation. This will deter fish from swimming too close to the caisson during the detonation procedure.	During detonation procedure	Biological Monitoring Sheet	CSLC
BIO-2	No mitigation required.			
BIO-3	No mitigation required. Assuming implementation of the *Oil Spill Contingency Plan* (Appendix M of the EIR)	Throughout the project duration	*Oil Spill Contingency Plan* (Appendix M of the EIR) & Periodic notes to the file after site visitation.	CSLC
BIO-4	No mitigation required.			
BIO-5	Determination of presence or absence of nesting birds on the structure shall be conducted by a State-approved biological monitor. If it is determined that at the scheduled time of Project implementation immature birds still occupy their nests at the structure, the Project shall be postponed until all the birds have left.	Prior to project implementation and throughout project activities	Biological Monitoring Sheet	CSLC
BIO-6	The *Anchor Mitigation & Hardbottom Avoidance Plan* shall be implemented (Appendix C of the EIR).	During project implementation	*Anchor Mitigation & Hardbottom Avoidance Plan* shall be implemented (Appendix C of the EIR) & Periodic notes to the file after site visitation	CSLC
	A State-approved construction or biological monitor shall confirm that the areas to which the anchors are flown are located at the pre-determined anchor placement locations.	Prior to project implementation	Biological Monitoring Sheet	CSLC
	The anchor locations shall be ground-truthed by a diver immediately prior to Project operations in order to determine whether anchor site revisions could reduce kelp and hardbottom habitat impacts.	Prior to any anchor placement activity throughout the duration of the	Diver report	CSLC

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
		project		
	Prior to installing the temporary mooring buoys, a diver-biologist survey will be conducted to ensure that kelp and hard bottom substrate is avoided.	Prior to project implementation	Diver-biologist report	CSLC
BIO-7	Within two weeks prior to anchoring vessels, cut kelp to a depth of 1.2 m (4 ft) below the sea surface, along the inshore anchor corridors.	One week (or less) prior to any anchor placement activity throughout the duration of the project	Biological Monitoring Sheet	CSLC
	Pre-position the inshore anchors and secure the anchors to the vessels via "soft line" from a pennant buoy attached to the anchor.	Prior to any anchor placement activity throughout the duration of the project	Biological Monitoring Sheet	CSLC
	Any kelp habitat lost due to project activities will be reported to the NMFS pursuant to Section 305(b) of the Marine Fishery Conservation and Management Act (MFCMA).	Throughout duration of the project	Biological Monitoring Sheet	CSLC/NMFS
	The imported rock fill, which has kelp attached to it, will not be removed.	Upon project completion	Biological Monitoring Sheet	NMFS
	A mitigation program will be implemented for significant kelp lost from natural substrates. Mitigation for kelp lost on man-made substrate will not be required because these kelp beds would not have occurred naturally. The program will include: - A pre- and post-Project underwater biological survey will be conducted to determine the number of kelp plants (growing on natural substrate) that was lost during Project activities. The results of the post-Project survey and the comparison with pre-Project conditions will be used to establish the need for a kelp restoration plan. Maps of hardbottom and kelp features prior to project implementation have been provided in Figures 4.1-1 and 4.4-3 and will be updated no more than 30 days prior to initiation of project removal activities. Maps of these features subsequent to the project will be provided in the Project Completion Report (to be completed within three months following completion of	Before project implementation, during the project and after project implementation	Biological Monitoring Sheet	CSLC

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
	removal of the PRC-421 pier remnants). - The need for any kelp replacement will be based upon a methodology and significance criteria to be pre-approved by the applicable permitting and regulatory agencies (e.g., CSLC, CCC, NMFS). If determined necessary, kelp replacement may be accomplished through artificial attachment of juveniles or subadult plants to substrate within the affected area or other method approved by the permitting and resources agencies. (The University of California Santa Barbara and Kelco have developed methods and successfully completed transplants by attaching recruit, juvenile, and adult plants to rock substrate.)			
Hazards				
HAZ-1	No mitigation required, assuming implementation of the *Explosive Transportation and Operations Plan.*	Throughout duration of the project	*Explosive Transportation and Operations Plan* (Appendix E).	CSLC
HAZ-2	No mitigation required, assuming implementation of the *Explosive Transportation and Operations Plan.*	Throughout duration of the project	*Explosive Transportation and Operations Plan* (Appendix E)	CSLC
HAZ-3	No mitigation required, assuming *Oil Spill Contingency Plans* are in place.	Throughout duration of the project	*Oil Contingency Plan* (Appendix M)	CSLC
HAZ-4	No mitigation required.			
HAZ-5	Prior to the initiation of explosive use, all personnel involved in operations around/with explosive use will be briefed on the procedures and requirements outlined in the *Explosives Transportation and Operation Plan.* Briefing includes but is not limited to work crew, marine mammal monitors, environmental compliance monitors, and state representatives.	Prior to explosive use	*Explosive Transportation and Operations Plan* (Appendix E)	CSLC
HAZ-6	No mitigation required.			
HAZ-7	No mitigation required.			
HAZ-8	No mitigation required.			
Noise				
NOI-1	Consistent with County thresholds, construction activities shall be confined to	During pile driving activities	Daily Site Monitoring	CSLC

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
	the period between 8:00 a.m. and 5:00 p.m. on weekdays during the pile driving phase of the Proposed Project.		Reports	
NOI-2	Notify the affected public in advance of the detonations in order to reduce potential disturbance/annoyance. Notification shall include placing warning signs at ingress points to Haskell's Beach, at the Sand Piper Pro Shop, at the Bacara Resort, and in the County Parks. The signs shall indicate that a total of eight detonations will occur, the construction window, and the estimated intensity/loudness of the detonations. The signs will not that explosions will be preceded by a warning siren from the workboat at the pier.	Prior to initiation of project activities	Copy of notices will be kept in file	CSLC
NOI-3	No mitigation required.			
Aesthetics				
VIS-1	The project proponent shall conduct an educational outreach program to inform the public about the project and the construction activities. This would include notifying the media, commercial facilities, and residents in the area about the type and duration of construction activities a month prior to beginning pier removal activities. Temporary notices would also be posted along the shore at all nearby beach accesses.	One month prior to initiation of project activities	Copy of notices will be kept in file	CSLC
VIS-2	No mitigation required.			
Cultural Resources				
CUL-1	No mitigation required.			
CUL-2	No mitigation required.			
Recreation				
REC-1	No mitigation required.			
REC-2	No mitigation required.			
REC-3	No mitigation required.			
REC-4	No mitigation required.			
REC-5	No mitigation required.			
REC-6	No mitigation required.			
REC-7	No mitigation required.			
Water Quality				
WAT-1	No mitigation required.			
WAT-2	Jetting of ocean floor sediments will be minimized to the furthest extent feasible.	During project implementation	Periodic notes to the file after site	CSLC

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
	The jetted material will be placed immediately adjacent to the work area.		visitation	
WAT-3	No mitigation required.			
WAT-4	No mitigation required.			
Environmental Justice				
	No mitigation required.			